

Title (en)
MULTI-RADAR AND CAMERA JOINT CALIBRATION METHOD, SYSTEM AND DEVICE, AND STORAGE MEDIUM

Title (de)
VERFAHREN, SYSTEM UND VORRICHTUNG ZUR GEMEINSAMEN KALIBRIERUNG MEHRERER RADAR- UND KAMERAVORRICHTUNGEN SOWIE SPEICHERMEDIUM

Title (fr)
PROCÉDÉ, SYSTÈME ET DISPOSITIF D'ÉTALONNAGE CONJOINT DE MULTIPLES RADARS ET DE CAMÉRA, ET SUPPORT DE STOCKAGE

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Application
EP 21920557 A 20210727

Priority
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Abstract (en)
Provided are a multi-radar and camera joint calibration method, system and device, and a storage medium. The calibration method comprises the following steps : providing multiple radar sensors and an image sensor to form a common field-of-view area together (S 100); successively arranging a calibration plate at a plurality of target positions in the common field-of-view area, wherein a plurality of calibration patterns are provided on the calibration plate, and for the calibration patterns, materials having different reflection coefficients are arranged around the centers of the calibration patterns, and obtaining data of detection of the calibration plate at different target positions by the radar sensors and the image sensor, so as to obtain coordinate information of the centers of the calibration patterns in respective three-dimensional coordinate systems of each radar sensor and the image sensor (S200); and performing joint calibration according to the coordinate information (S300). According to the present method, the world coordinates of reference points on the same calibration plate can be simultaneously obtained by means of three different sensors, and joint calibration is then realized by means of iterative matching, thereby reducing the steps of multi-sensor calibration, and increasing the speed of joint calibration.

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